SOUTHERN ENVIRONMENTAL LAW CENTER

Telephone 615-921-9470

1033 DEMONBREUN STREET, SUITE 205 NASHVILLE. TN 37203 Facsimile 615-921-8011

August 2, 2021

VIA e-mail to

Administrator Michael S. Regan U.S. Environmental Protection Agency 1200 Pennsylvania Avenue NW Washington, D.C. 20004 Regan.Michael@epa.gov

RE: Concerns Regarding the U.S. Department of Energy's Recent Actions During the U.S. Environmental Protection Agency's Review of the December 31, 2020 Radionuclide Pollution Decision for the Oak Ridge Reservation Facility in Oak Ridge, Tennessee

Dear Administrator Regan:

The Southern Environmental Law Center, Advocates for the Oak Ridge Reservation, Tennessee Chapter of the Sierra Club, and Tennessee Citizens for Wilderness Planning (Community Groups) write to follow up on our May 26, 2021 letter requesting that the U.S. Environmental Protection Agency (EPA) review and reconsider the December 31, 2020 decision issued by former EPA Administrator Andrew Wheeler regarding discharge of radioactive wastewaters at the Oak Ridge Reservation Facility (ORR Facility) in Oak Ridge, Tennessee (Radionuclide Pollution Decision or Decision).

Community Groups would first like to express gratitude to EPA for agreeing to review the Radionuclide Pollution Decision and for facilitating the June 23, 2021 discussion with EPA representatives. As we discussed during the June 23 meeting, the effects of the Radionuclide Pollution Decision have tangible, on-the-ground impacts to local communities who live and recreate near the ORR Facility. It is of critical importance that any final waste disposal decisions are truly protective of human health and the environment.

Unfortunately, the threat posed by the Radionuclide Pollution Decision to public health and the environment has come into stark relief since our June 23, 2021 meeting. As you know, the Decision governs the amount of carcinogenic, bioaccumulative radioactive pollution that the U.S. Department of Energy (DOE) will be able to discharge into Bear Creek, a tributary of the Clinch River, in connection with existing and proposed landfills that are intended to provide a remedy for DOE's contamination of the Oak Ridge Reservation. Contrary to the Comprehensive Environmental Response, Compensation, and Liability Act's (CERCLA) clear preference for technology-based clean-up standards, the Decision invites DOE to potentially discharge large quantities of radioactive pollutants into Bear Creek based on flawed assumptions that are not protective of human health or the environment. Alarmingly, in a pair of recently-submitted documents, DOE has taken up that invitation and has proposed to sacrifice Bear Creek and the

Charlottesville . Chapel Hill . Atlanta . Asheville . Birmingham . Charleston . Nashville . Richmond . Washington, DC

¹ See 42 U.S.C.A. § 9621(b)(1).

Re: Concerns with DOE Actions Taken in Reliance on the Radionuclide Pollution Decision August 2, 2021
Page 2 of 10

health of communities downstream rather than install available and practicable treatment technologies required by CERCLA.

Specifically, DOE has attempted to take two dramatic steps to solidify its waste disposal plans at the ORR Facility in reliance on the Radionuclide Pollution Decision, despite EPA's current review of the Decision's legality, appropriateness, and effect. First, on the same day that Community Groups met with EPA, DOE transmitted the third draft of the Focused Feasibility Study for Water Management for the Disposal of CERCLA Waste on the Oak Ridge Reservation, Oak Ridge Tennessee (revised FFS) to EPA and the Tennessee Department of Environment and Conservation (TDEC).² This premature revised FFS reflects DOE's interpretation of the Radionuclide Pollution Decision. Second, on July 12, 2021, DOE prematurely issued a draft Record of Decision for the disposal of waste at the ORR Facility, before EPA and TDEC were able to review or comment upon the deeply flawed revised FFS.³ Although EPA and TDEC have subsequently rejected the revised FFS,⁴ both DOE's submittal

² Letter from Brian Henry and Roger Petrie (DOE) to Constance Jones (EPA) and Randy Young (TDEC), Re: Transmittal of the Focused Feasibility Study for Water Management for the Disposal of CERCLA Waste on the Oak Ridge Reservation, Oak Ridge, Tennessee (DOE/OR/01-2664&D3) (June 23, 2021),

https://www.tn.gov/content/dam/tn/environment/remediation/documents/oakridgereservation/emdf-documents/73212 EMDF Wastewater FFS Ltr 06 23 2021.pdf; Focused Feasibility Study for Water Management for the Disposal of CERCLA Waste on the Oak Ridge Reservation, Oak Ridge Tennessee, U.S. Dep't. of Energy (June 13, 2021),

https://www.tn.gov/content/dam/tn/environment/remediation/documents/oakridgereservation/em df-documents/73212 EMDF Wastewater FFS 06 23 2021.pdf.

³ Letter from Dennis Mayton and Roger Petrie (DOE) to Constance Jones (EPA) and Randy Young (TDEC), Re: Submittal of the Record of Decision for Comprehensive Environmental Response, Compensation, and Liability Act Oak Ridge Reservation Waste Disposal at the Environmental Management Disposal Facility, Oak Ridge, Tennessee (DOE/OR/01-2794&D1) (July 12, 2021) (ROD Transmittal Letter),

https://www.tn.gov/content/dam/tn/environment/remediation/documents/oakridgereservation/emdf-documents/rem 73212 EMDF ROD D1 Ltr 07 12 2021.pdf; Record of Decision for Comprehensive Environmental Response, Compensation, and Liability Act Oak Ridge Reservation Waste Disposal at the Environmental Management Disposal Facility, Oak Ridge, Tennessee, U.S. Dep't of Energy (June 22, 2021),

https://www.tn.gov/content/dam/tn/environment/remediation/documents/oakridgereservation/em df-documents/rem 73212 EMDF ROD D1 07 12 2021.pdf.

⁴See Letter from Carl Froede (EPA) to Roger B. Petrie (DOE) (July 22, 2021) (EPA Comments on Revised FFS),

https://www.tn.gov/content/dam/tn/environment/remediation/documents/oakridgereservation/emdf-documents/rem-73212 EMDF Wastewater FFS EPA 07 22 2021b.pdf; Letter from Randy Young (TDEC) to Roger B. Petrie (DOE), Re: TDEC Comment Letter Focused Feasibility Study for Water Management for the Disposal of CERCLA Waste on the Oak Ridge Reservation, Oak Ridge, Tennessee (DOE/OR/01-2664&D3) (July 23, 2021) (TDEC Comments on Revised FFS),

Re: Concerns with DOE Actions Taken in Reliance on the Radionuclide Pollution Decision August 2, 2021
Page 3 of 10

and the agencies' response underscore the urgent need to reconsider the Radionuclide Pollution Decision and bring it into alignment with CERCLA's goals.

The concerns we highlight below with regard to these two premature documents are not exhaustive; they serve only to illustrate the harm that will be wrought by the Radionuclide Pollution Decision if left unchanged and the manner in which DOE is attempting to rely on the Decision to cut corners and costs at the expense of Tennessee's water quality and public health. The simple solution proposed by Community Groups is for EPA to reconsider the Decision and require DOE's radionuclide discharges to comply with technology-based effluent limitations and Tennessee's antidegradation policy as applicable or relevant and appropriate requirements (ARARs). EPA should require compliance with technology-based effluent limitations and Tennessee's antidegradation policy in addition to the Tennessee Water Quality Standards, EPA and Tennessee NPDES regulations relating to water quality based effluent limitations, and the Nuclear Regulatory Commission regulations at 10 C.F.R. §§ 61.41 and 61.43 already affirmed as relevant and appropriate to the discharge of radionuclide-containing wastewater at the ORR facility.⁵

I. Concerns Regarding the Use of the Radionuclide Pollution Decision in the Revised FFS

Based on its interpretation of the Radionuclide Pollution Decision, DOE included as Appendix K to the revised FFS proposed risk-based radiological wastewater discharge limits. Community Groups are alarmed because the levels of carcinogenic, bioaccumulative radionuclides DOE proposes to discharge into Bear Creek in the revised FFS in reliance on the Decision are exceedingly high. For example, in the revised FFS, DOE proposes that EPA should authorize a discharge limit for Technetium-99, a known carcinogen, at 1,818,240 picocuries per liter (pCi/L). DOE also proposes that EPA should authorize a discharge limit for Strontium-90, another known carcinogen, at 327,872 pCi/L. These levels are orders of magnitude higher than what DOE proposed *before* the Decision in an earlier draft FFS: 11,000 pCi/L for

https://www.tn.gov/content/dam/tn/environment/remediation/documents/oakridgereservation/em df-documents/rem-73212 EMDF Wastewater FFS TDEC 07 23 2021a.pdf.

⁵ See Radionuclide Pollution Decision, p. 14.

⁶ Revised FFS, p. K-14.

⁷ Radionuclide Basics: Technetium-99, U.S. Env't Prot. Agency (last updated July 14, 2021), https://www.epa.gov/radiation/radionuclide-basics-technetium-99#technetiumhealth.

⁸ Revised FFS, p. 35, Table 6.

⁹ Radioisotope Brief: Strongtium-90, Ctrs. for Disease Control and Prevention (last updated Apr. 4, 2018), https://www.cdc.gov/nceh/radiation/emergencies/isotopes/strontium.htm, ("Sr-90 can be inhaled, but ingestion in food and water is the greatest health concern. Once in the body, Sr-90 acts like calcium and is readily incorporated into bones and teeth, where it can cause cancers of the bone, bone marrow, and soft tissues around the bone.").

¹⁰ Revised FFS, p. 35, Table 6.

Re: Concerns with DOE Actions Taken in Reliance on the Radionuclide Pollution Decision August 2, 2021
Page 4 of 10

Technetium-99 and 275 pCi/L for Strontium-90.¹¹ Although EPA has rejected the revised FFS's discharge limits as premature, the agency relies on the flawed framework of the Decision as the basis for its rejection and cites the Decision as the foundation from which to calculate new limits.¹² It is worth noting that *both* of DOE's proposals (pre- and post-Decision) are dramatically higher than levels that could and should be achieved with available and practicable methodologies such as ion-exchange resin treatment. EPA should also have rejected the revised FFS based on the agency's decision to review the Radionuclide Pollution Decision.

Community Groups also note that the public is only able to evaluate landfill wastewater discharge information for those radionuclides included in the public record. Yet waste disposed at EMWMF and waste proposed for disposal at EMDF also include classified waste. Treating all landfill wastewater with available and practicable technology-based treatments would additionally serve to protect downstream surface water users if there are other radionuclides present in the discharge which are not part of the public record.

Furthermore, the assumptions made by DOE in Appendix K of the revised FFS to formulate exposure scenarios and develop discharge alternatives are not protective of human health and the environment and highlight the problems invited by the ambiguities created by the Radionuclide Pollution Decision. For example, DOE acknowledges that the most restrictive use designation of the receiving water—Bear Creek—is recreational, and that the individual with the potential maximum exposure to radionuclides in effluent from ORR landfills would be a recreational fisherman who fishes from Bear Creek. However, DOE opines that "there is considerable uncertainty as to whether or not [Bear Creek] is large enough to support a viable fishery that will sustain significant populations of fish large enough to be edible." Therefore, DOE finds it "more plausible" that edible fish will only be able to be caught further downstream from the discharge location around BCK 3.3 to 4.5. This assertion contradicts a 2019 Remediation Effectiveness Report issued by DOE for the Oak Ridge Site, which notes that:

Over recent decades beavers have expanded their range in the Oak Ridge area and as a result lower Bear Creek has multiple large beaver dams that have extensively flooded riparian zones. The dams have created deeper stream pools suitable for rock bass, which has expanded its range in the last couple years to the middle sections of Bear Creek nearer BCK 9.9. In FY 2018, a full collection of six rock bass were collected from BCK 9.9 in both the spring and fall.

¹¹ Focused Feasibility Study for Water Management for the Disposal of CERCLA Waste on the Oak Ridge Reservation, Oak Ridge, Tennessee, U.S. Dep't of Energy, p. 35, Table 6 (Feb. 4, 2016), https://doeic.science.energy.gov/uploads/F.0600.029.0700.pdf.

¹² EPA Comments on the Focused Feasibility Study for Water Management for the Disposal of CERCLA Waste on the Oak Ridge Reservation, Oak Ridge, Tennessee (DOE/OR/01-2664&D3), p. 5 (July 23, 2021) (EPA Comments on the Revised FFS),

https://www.tn.gov/content/dam/tn/environment/remediation/documents/oakridgereservation/em df-documents/rem-73212 EMDF Wastewater FFS EPA 07 22 2021b.pdf.

¹³ Revised FFS, p. K-14.

¹⁴ *Id*.

Re: Concerns with DOE Actions Taken in Reliance on the Radionuclide Pollution Decision August 2, 2021
Page 5 of 10

 $Id.^{15}$

Advocates for the Oak Ridge Reservation have also documented beaver activity in Bear Creek, as well as fishable and wadeable portions of Bear Creek accessible by a public greenway. ¹⁶ The greenway trail crosses Bear Creek three times, and Community Group members have often observed families with children walking the trail between the Bear Creek bridges, most recently this summer on a hot July day. These sightings illustrate the ease with which families may access Bear Creek for fishing or wading.

This readily-accessible information—some of it reported by DOE itself—casts doubt on DOE's fishery assumptions. It also has significant consequences for the agency's assumptions about site-specific fish ingestion exposure frequencies. The Revised FFS states that a high-end exposure to fish harvested downstream from the EMWMF and a future EMDF would be a person consuming a total of 6 ounces of fish per year. Those 6 ounces represent one serving of fish per year. Yet in its August 26, 2019 letter to Administrator Wheeler, DOE utilized a fish consumption equivalent of about 85.7 ounces of fish per year. There is no support in the record for DOE's revised fish consumption assumptions. Further, in our June 23, 2021 meeting with EPA, the agency indicated only that site-specific fish *tissue* studies were being conducted, not site-specific fish consumption studies that could reasonably answer the questions of who is eating the fish and how much of it.

As EPA recognized in its comments on the revised FFS, DOE's use of dilution to establish water quality-based effluent limits is inappropriate.²⁰ To the extent DOE may need to calculate in-stream flows for the point of reasonable maximum exposure in Bear Creek, DOE also needs to comply with relevant and appropriate state requirements. State regulations require

¹⁵ 2019 Remediation Effectiveness Report for the U.S. Department of Energy Oak Ridge Site Oak Ridge, Tennessee, DOE/OR/01-2787&D1, U.S. Dep't. of Energy, p. 4-49 (Mar. 13, 2019), https://doeic.science.energy.gov/uploads/A.0100.064.2630.pdf.

¹⁶ Images of these locations are available on the Advocates for the Oak Ridge Reservation website, https://aforr.info/gallery/, and are attached as Exhibit 1. More recent photographs taken by Community Group members along the Bear Creek greenway are also included as Exhibit 2. ¹⁷ Revised FFS, p. K-18.

¹⁸ *Id*.

¹⁹ Letter from Bill Cooper (DOE) to Andrew R. Wheeler (EPA), p. 17 (Aug, 26, 2019), https://www.tn.gov/content/dam/tn/environment/remediation/documents/oakridgereservation/emdf-documents/ffs-water-

management/73212 EMWMF EMDF FFS Formal Dispute DOE 08 26 2019.pdf.

²⁰ EPA Comments on Revised FFS, p. 4 ("Further, neither the CWA, which is a relevant and appropriate requirement, nor the Administrator's decision, allows for the use of a dilution or attenuation factor in developing water quality based effluent limits. The decision specifically states that the compliance with instream water quality criteria is to be achieved at 'the point of discharge.' Please remove use of dilution for the development of proposed discharge limits.").

Re: Concerns with DOE Actions Taken in Reliance on the Radionuclide Pollution Decision August 2, 2021
Page 6 of 10

in-stream flow calculations to be based on the 30-day minimum five-year recurrence interval, not annual mean flows.²¹

As written, the Radionuclide Pollution Decision invites DOE to ignore the facts on the ground in favor of assumptions that serve its favored remedy rather than the remedy that is best for surrounding communities. The establishment of sufficiently protective discharge limits is particularly important given the anecdotal information shared by Community Groups at the June 23, 2021 meeting regarding potential fishing practices in the area by local Latino communities, as well as the proximity of the Scarboro community and residential communities in general to the existing and proposed landfill sites.

To comply with CERCLA and to be sufficiently protective of public health in our communities, radionuclide discharge limits should be based on available and practicable technology (TBELs), and should take into account existing degradation of Bear Creek from past discharges from DOE's existing landfill and other sources. Precedent exists for applying a state's antidegradation policy as an ARAR in a CERCLA clean up, ²² and it should be applied here—particularly because much of the degradation that exists in Bear Creek is due to DOE's ongoing untreated discharges of radionuclides and other pollutants from the existing landfill.

II. Concerns Regarding the Use of the Radionuclide Pollution Decision in the Premature Draft Record of Decision

On July 12, 2021, DOE issued a draft Record of Decision for the disposal of waste at the ORR Facility. The draft Record of Decision incorporates findings from the Radionuclide Pollution Decision but declines to include final radionuclide discharge limits despite their central importance to the effectiveness of DOE's selected remedy.²³ The draft Record of Decision is premature for a number of reasons, including but not limited to the ongoing review by EPA of the Radionuclide Pollution Decision. It is unclear how EPA can meaningfully review and approve the draft Record of Decision without first understanding the amount of radioactive pollution that DOE is proposing to discharge into Bear Creek.

The issuance of the draft Record of Decision highlights the arbitrariness of DOE's remedy selection process for the proposed landfill. CERCLA and its implementing regulations set forth the appropriate order of events when conducting a remedy selection process, and specifically envision the preparation of a Remedial Investigation and Feasibility Study (RI/FS)

²² See In the Matter of Mather Air Force Base and George Air Force Base, California, Decision of the Administrator Carol M. Browner (April 22, 1993) (finding State of California narrative groundwater anti-degradation policy is a state ARAR for federal facility remedial actions).

²³ ROD Transmittal Letter, ("Radiological discharge limits, as acknowledged in the Dispute Resolution Decision rendered by the EPA Administrator on December 31, 2020, are currently being determined in parallel with this ROD submittal. It is expected that those limits will be completed in a timely manner and included in the second and final version of the ROD submitted for approval.").

²¹ See TDEC Rule 0400-40-03-.05(4); TDEC Rule 0400-40-05-.08(1)(m).

Re: Concerns with DOE Actions Taken in Reliance on the Radionuclide Pollution Decision August 2, 2021 Page 7 of 10

before a Proposed Plan is issued for public review.²⁴ Here, the revised FFS is properly considered an element of the RI/FS that is intended to establish preliminary remediation goals for the site.²⁵ Yet DOE has issued a Proposed Plan, and now a draft Record of Decision, before preliminary remediation goals for radionuclide pollution have even been identified. Although DOE, EPA, and TDEC agreed to this disjointed approach in a December 7, 2017 Dispute Resolution Agreement, ²⁶ the shortcomings of this arrangement are evident, as the Radionuclide Pollution Decision enables DOE to select discharge limits that suit its pre-selected remedy, rather than requiring the remedy to achieve properly-established remediation goals.

CERCLA regulations require that selected remedies for hazardous substances must meet the threshold requirements of being protective of human health and the environment and complying with all non-waived ARARs.²⁷ As currently written, the revised FFS and the draft Record of Decision do not appear to meet this standard. EPA and TDEC have noted as much in their comments on the revised FFS.²⁸ EPA cannot approve the revised FFS and any final Record of Decision until it can verify that these threshold criteria are achieved.

Issuance of the draft Record of Decision is also inappropriate at this time because DOE must comply with established law and reopen the public comment period on the Proposed Plan for the Disposal of Oak Ridge Reservation Comprehensive Environmental Response, Compensation, and Liability Act Waste (September 2018) (revised Proposed Plan) based on the amount of new and unanticipated information that has developed since the original comment period closed in January 2019. Community Groups have repeatedly asked DOE to reopen the public comment period on its revised Proposed Plan in accordance with 40 C.F.R. § $300.430(f)(3)^{29}$, and recent developments only underscore the importance of doing so.

If left effective, the Radionuclide Pollution Decision significantly influences the scope and performance of the remedial activity at the ORR Facility by deciding what law governs the

²⁴ 40 C.F.R. § 300.430.

²⁵ *Id*.

²⁶ Dispute Resolution Agreement (Dec. 7, 2017), https://www.tn.gov/content/dam/tn/environment/remediation/documents/oakridgereservation/em df-documents/rem-investigation-feasibility-study/11)%2073212 EMDF DRA 12 07 2017.pdf. ²⁷ 40 C.F.R. § 300.430(f)(i)(A).

²⁸ See e.g., Letter from Carl Froede (EPA) to Roger B. Petrie (DOE) supra note 4 ("The proposed effluent limits ['screening level discharge limits'] do not comply with identified CWA ARARs for meeting effluent limits at the end of the pipe and attainment of AWQC equivalents throughout the stream."); Letter from Randy Young (TDEC) to Roger B. Petrie (DOE) supra note 4 ("ARARs discussed in earlier meetings are omitted from the D3 FFS.").

²⁹ See, e.g., Letter from Nate Watson (SELC) to John Japp (DOE), Re: Continuing lack of meaningful public comment on Proposed Plan for the Disposal of Oak Ridge Reservation Comprehensive Environmental Response, Compensation, and Liability Act Waste (September 2018) (Aug. 1, 2019), appended as Exhibit 3; Letter from Christina Reichert (SELC) to John Japp (DOE), Re: New information regarding the proposed landfill site for Oak Ridge Reservation Comprehensive Environmental Response, Compensation, and Liability Act Waste. (Oct. 1, 2019), appended as Exhibit 4.

Re: Concerns with DOE Actions Taken in Reliance on the Radionuclide Pollution Decision August 2, 2021
Page 8 of 10

selection of effluent limits for radionuclide wastewater discharges at the site and which federal and state regulations are ARARs for the discharges. This constitutes new information which significantly changes the basic features of the proposed remedy at ORR with respect to scope, performance, or cost, in a manner unanticipated by the public. Therefore, additional public comment is necessary.

CERCLA regulations state that new information "significantly changes the basic features" of a CERCLA remedy where "the remedy significantly differs from the original proposal in the proposed plan and the supporting analysis and information." *Id.* The Radionuclide Pollution Decision does so here. DOE chose to release its revised Proposed Plan in 2018 before a final RI/FS was agreed to and finalized between TDEC, DOE, and EPA. This meant that several key components of the Proposed Plan were left undetailed. In its October 2018 comments on the Proposed Plan, TDEC articulated as much, stating that it could not approve the Proposed Plan until numerous "key issues" were resolved, including the legally-applicable ARARs which would apply to the site. Given these omissions, and as articulated several times by Community Groups, the public could not adequately assess and comment on the Proposed Plan when so much of the proposal, its supporting analysis, and relevant information remained incomplete.

The Radionuclide Pollution Decision would resolve one of the "key issues" omitted from the Proposed Plan, its supporting analysis, and the documents available to the public at the time of the previous public comment period. This information "significantly changes basic features" of the Proposed Plan and could not have been reasonably anticipated by the public, given the dueling views of appropriate ARARs between the agencies and in light of Administrator Wheeler's surprising decision to exclude TBELs as ARARs.

By issuing a Record of Decision now without reopening a public comment period, DOE is essentially trying to shift the cost of its decision to issue a premature Proposed Plan onto the public. DOE's strategy to forge ahead with issuing an incomplete Proposed Plan meant that new information would be generated after the public comment period closed, and much of that new information has significantly changed the basic features of the proposed remedy. Although TDEC and EPA agreed to allow DOE to issue the Proposed Plan prior to a finalized RI/FS, the public never agreed to forego their rights under CERCLA to provide public comment on new significant and unanticipated information that was revealed thereafter. EPA should submit comments on the Record of Decision issued by DOE demanding that public comment be reopened prior to finalizing any decision.³¹

 $\frac{https://www.tn.gov/content/dam/tn/environment/remediation/documents/oakridgereservation/em/dr-documents/proposed-plan/EMDF%20Fact%20Sheet.pdf.$

³⁰ Environmental Management Disposal Facility Fact Sheet, Tennessee Dep't of Env't and Conservation (Oct. 11, 2018),

In its comments on the revised FFS, EPA acknowledges that "[t]he public was not afforded the opportunity to review the Administrative Record regarding wastewater management since it was in dispute when the EMDF [Proposed Plan] was issued." EPA Comments on the Revised FFS, p.

^{2.} Although EPA then recommends that DOE provide "additional public involvement

Re: Concerns with DOE Actions Taken in Reliance on the Radionuclide Pollution Decision August 2, 2021
Page 9 of 10

In addition to the reasons already identified by Community Groups, the Radionuclide Pollution Decision provides yet another basis for requiring that additional public comment be solicited on the Proposed Plan. EPA should urge DOE to comply with applicable law and reopen the public comment period. EPA should also revise the Radionuclide Pollution Decision so that DOE can formulate a revised FFS and Record of Decision that is consistent with CERCLA and adequately protective of human health and the environment.

Community Groups appreciate EPA's continued attention to this matter.

Sincerely,

Amanda Garcia Stephanie Biggs Attorneys Southern Environmental Law Center agarcia@selctn.org sbiggs@selctn.org

Virginia Dale President Advocates for the Oak Ridge Reservation

Axel Ringe Water Quality Chair Tennessee Chapter Sierra Club

Sandra Goss Executive Director Tennessee Citizens for Wilderness Planning

Cc: Carlton Waterhouse, Deputy Assistant Administrator, EPA Office for Land and Emergency Management, Waterhouse.Carlton@epa.gov
Melissa Hoffer, EPA Principal Deputy General Counsel, Hoffer.Melissa@epa.gov
Dimple Chaudhary, EPA Deputy General Counsel for Nationwide Resource Protection Programs, Chaudhary.Dimple@epa.gov
Avi Garbow, Senior Counselor to the Administrator, garbow.avi@epa.gov
Leif Palmer, Regional Counsel, EPA Region 4, palmer.leif@epa.gov

opportunities," *id.*, to address this shortcoming, the agency should specify that CERCLA regulations require that DOE reopen the public comment period.

Re: Concerns with DOE Actions Taken in Reliance on the Radionuclide Pollution Decision August 2, 2021
Page 10 of 10

Matthew Lee-Ashley, Acting Chief of Staff, White House Council on Environmental Quality, <u>Matthew.G.Lee-Ashley@ceq.eop.gov</u>
Roger B. Petrie, Federal Facility Agreement Project Manager, <u>Roger.Petrie@ettp.doe.gov</u>

Brian T. Henry, Portfolio Federal Project Director, Brian.Henry@orem.doe.gov

John A. Mullis II, Manager, Oak Ridge Office of Environmental Management,

Jay.Mullis@orem.doe.gov









Bear Creek at First Greenway Bridge July 22, 2021, with TDEC Sign that Fish Should Not Be Eaten



Bear Creek from First Greenway Bridge Over Bear Creek July 22, 2021



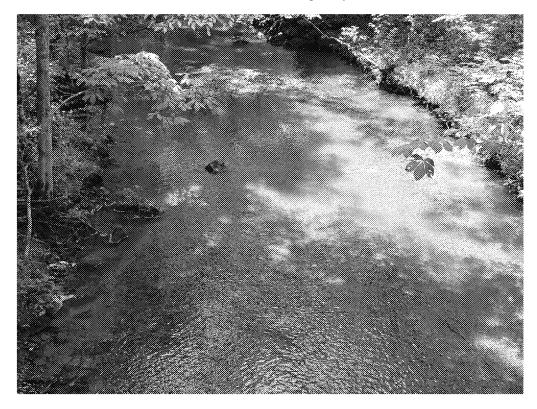
Bear Creek from First Greenway Bridge Over Bear Creek July 22, 2021



Bear Creek Greenway with Second Bridge over Bear Creek



Bear Creek from Second Bridge July 22, 2021





Bear Creek from Third Bridge July 22, 2021





East Fork Poplar Creek from Greenway July 22, 2021



Greenway Showing Bridge over East Fork Poplar Creek July 22, 2021



Upstream East Fork Poplar Creek from Greenway Bridge over East Fork Poplar Creek July 22, 2021



Downstream East Fork Poplar Creek and Poplar Creek from Greenway Bridge over East Fork Poplar Creek July 22, 2021



SOUTHERN ENVIRONMENTAL LAW CENTER

Telephone 615-921-9470

1033 DEMONBREUN STREET, SUITE 205 NASHVILLE. TN 37203 Facsimile 615-921-8011

August 1, 2019

John Michael Japp FFA Project Manager Oak Ridge Environmental Management U.S. Department of Energy Oak Ridge Operations P.O. Box 2001 Oak Ridge, TN 37831

RE: Continuing lack of meaningful public comment on Proposed Plan for the Disposal of Oak Ridge Reservation Comprehensive Environmental Response, Compensation, and Liability Act Waste (September 2018)

Dear Mr. Japp,

The U.S. Department of Energy (Department) has failed to provide an opportunity for meaningful public comment on its proposed plan to build and operate a hazardous and radioactive waste landfill that would corrupt existing greenfields (Proposed Plan). Under established law, the Department failed to "include sufficient information" regarding the Proposed Plan before the first public comment period. Simply speaking, this means the Department must not only reopen public comment, but also provide the "notice and analysis" necessary to fully inform the public and provide for meaningful public comment.

This is not the first time that we have raised this concern. In a letter dated December 10, 2018, the Southern Environmental Law Center, Advocates for the Oak Ridge Reservation, Tennessee Chapter of the Sierra Club, and Tennessee Citizens for Wilderness Planning commented on the Proposed Plan for the Disposal of Oak Ridge Reservation Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Waste (the Proposed Plan).³ We stated that the Proposed Plan was inadequate for many reasons, including the Department's failure to provide sufficient supporting analysis, data, and information, including an incomplete characterization of the proposed landfill location and proposed regulatory waivers that have not been obtained.⁴ The Proposed Plan also failed to include waste acceptance criteria, discuss long-term effectiveness and permanence of the proposed landfill, disclose its primary

¹ U.S. Dep't of Energy, *Proposed Plan for the Disposal of Oak Ridge Reservation Comprehensive Environmental Response, Compensation, and Liability Act Waste* (Sept. 2018) [hereinafter "Proposed Plan"].

² 42 U.S.C. § 9617(a) ("[T]he notice and analysis published . . . shall include sufficient information as may be necessary to provide a reasonable explanation of the proposed plan"); 40 C.F.R. § 300.430(f)(3) (requiring the lead agency to provide a reasonable opportunity for public comment on "the proposed plan and the supporting analysis and information located in the information repository")

analysis and information located in the information repository").

³ Attachment (Att.) 1, Letter from Christina I. Reichert, SELC, et al., to John Michael Japp, DOE, Dec. 10, 2018.

⁴ *Id.* at 3–4.

balancing criteria, or account for the proposed landfill's long-term liability and costs.⁵ As a result, the public comment period was too hobbled for the Department, based on its "review [of] the public comments . . . to determine if the alternative remains the most appropriate remedial action for the site or site problem."

The Department should not be allowed to rush ahead with a Proposed Plan that could put higher levels of radioactive pollution into nearby waters that Tennesseans use for recreation and fishing, particularly when both the State of Tennessee and the U.S. Environmental Protection Agency have raised concerns that this proposed landfill would impact human health and the environment. After the close of the comment period, correspondence between the Department, the Tennessee Department of Environment and Conservation (TDEC), and the U.S. Environmental Protection Agency Region IV (EPA Region IV), regarding gaps in the Department's Proposed Plan has only heightened our concern about the Proposed Plan and the Department's ongoing failure to provide sufficient information to support it.

Our concern is further heightened because the Department has a history of failure to adequately address the legacy of waste created as part of its nuclear program. Indeed, at Oak Ridge Reservation, TDEC has expressed concern that the Department's existing landfill, which

⁵ Att. 2, Letter from Virginia H. Dale, Advocates for the Oak Ridge Reservation (AFORR), to John Michael Japp, DOE, Dec. 3, 2018 [hereinafter "AFORR Comment Letter"]; Att. 3, Comments from Mark Watson, City of Oak Ridge, to John Michael Japp, DOE, at the Public Hearing on the U.S. Department of Energy's Proposed Plan for the Disposal of Oak Ridge Reservation Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Waste, Nov. 7, 2018 [hereinafter "City of Oak Ridge Comments"]; Att. 4, Letter from Axel C. Ringe, Tennessee Chapter of the Sierra Club, to John Michael Japp, DOE, Dec. 10, 2018 [hereinafter "Sierra Club Comment Letter"].

⁶ 40 C.F.R. § 300.430(f)(1)(ii)..

⁷ Att. 5, Letter from Chuck Head, TDEC, to David Adler, DOE, Jul. 8, 2019 [hereinafter "TDEC's Groundwater Conditions Letter"], https://www.tn.gov/content/dam/tn/environment/remediation/documents/

⁷³²¹² EMDF GW Model TDEC 07 08 2019.pdf; Att. 6, Letter from David W. Salyers, TDEC, to John A. Mullis, DOE, & Mary S. Walker, EPA, Apr. 5, 2019 [hereinafter "TDEC Formal Dispute Position"], https://www.tn.gov/content/dam/tn/environment/remediation/documents/oakridgereservation/emdf-documents/ffs-water-management/ffs-water-management/ffs-water-management/73212 EMWMF EMDF FFS Formal Dispute

TDEC 04 05 2019.pdf; Att. 7, Letter from Mary S. Walker, EPA, to John A. Mullis II, DOE, & David W. Salyers, TDEC, Mar. 21, 2019; [hereinafter "EPA Formal Dispute Position"],

https://www.tn.gov/content/dam/tn/environment/remediation/documents/oakridgereservation/emdf-documents/ffs-water-management/73212 EMWMF EMDF FFS Formal Dispute EPA 03 21 2019.pdf; Att. 8, Letter from David W. Salyers, TDEC, to Andrew Wheeler, EPA, Jul. 5, 2019, [hereinafter "TDEC Formal Dispute Position Supplement"] https://www.tn.gov/content/dam/tn/environment/remediation/documents/oakridgereservation/emdf-documents/ffs-water-management/73212 EMWMF EMDF FFS Formal Dispute TDEC 07 05 2019.pdf.

⁸ Att. 9, U.S. Gov't Accountability Office, Report to the Chairman of the Subcommittee on Strategic Forces, Committee on Armed Services, U.S. Senate, *Department of Energy: Program-Wide Strategy and Better Reporting Needed to Address Growing Environmental Cleanup Liability* (Jan. 2019); Att. 10, U.S. Gov't Accountability Office, Report to the Subcommittee on Strategic Forces, Committee on Armed Services, U.S. Senate, *Nuclear Waste: DOE Should Take Actions to Improve Oversight of Cleanup Milestones* (Feb. 2019); Att. 11, U.S. Gov't Accountability Office, Testimony Before the Subcommittee on Oversight and Investigations, Committee on Energy and Commerce, House of Representatives, *Department of Energy: Environmental Liability Continues to Grow, and Significant Management Challenges Remain for Cleanup Efforts* (May 2019).

is strikingly similar to the proposed landfill, is sited within the water table and is contaminating groundwater and nearby surface water. ⁹ It is important that the Department take the time necessary to ensure that this clean up does not repeat, again, the mistakes of the past.

The Department itself has admitted that there are significant information gaps in the Proposed Plan that was provided for public comment, including but not limited to an unfinished characterization of the proposed landfill location and proposed waivers for three applicable or relevant and appropriate requirements from the Toxic Substances Control Act and Tennessee law. Moreover, the Department has still not provided the public with a complete site characterization, groundwater modeling based on actual conditions, or the Department's waste acceptance criteria. These are not the only information gaps that prevented meaningful public comment. At a minimum, the Department should provide:

- 1) Complete data demonstrating the hydrologic conditions underlying the proposed disposal site under both wet and dry conditions;¹¹
- 2) All of the applicable or relevant and appropriate requirements (ARARs) under federal environmental, state environmental, or facility siting laws. The proposed plan includes exceptions to known ARARs before those requirements were evaluated by TDEC and EPA Region IV. Since then, both TDEC and EPA Region IV have insisted that the Department abide by the ARARs and objected to some of the exceptions the Department generated for itself;¹²
- 3) Waste acceptance criteria, including an analytical limit for mercury cocontamination; 13
- 4) A complete Composite Analysis and a Comparative Analysis of costs for Onsite and Offsite alternatives;¹⁴
- 5) Adequate detail to assess the Department's plan for remediation and disposal of mercury wastes;¹⁵
- 6) Data to assess the proposed landfill's control of radionuclides; 16 and
- 7) Its knowledge of the failures caused by the design, construction, and operation of the Environmental Waste Management Facility landfill (EMWMF landfill) that began receiving waste in 2002, and any other information regarding the short and long-term performance of the EMWMF.¹⁷

⁹ TDEC's Groundwater Conditions Letter.

¹⁰ Proposed Plan at 6, 18, 21.

¹¹ TDEC Groundwater Conditions Letter; AFORR Comment Letter; City of Oak Ridge Comments.

¹² TDEC Formal Dispute Position; EPA Formal Dispute Position; TDEC Formal Dispute Position Supplement; City of Oak Ridge Comments; Sierra Club Comment Letter.

¹³ EPA Formal Dispute Position; TDEC Groundwater Conditions Letter; AFORR Comment Letter; City of Oak Ridge Comments; Sierra Club Comment Letter.

¹⁴ TDEC Groundwater Conditions Letter; AFORR Comment Letter; City of Oak Ridge Comments; Sierra Club Comment Letter.

¹⁵ City of Oak Ridge Comments; Sierra Club Comment Letter.

¹⁶ TDEC Groundwater Conditions Letter; Sierra Club Comment Letter.

¹⁷ TDEC Groundwater Conditions Letter; Sierra Club Comment Letter.

All of this information should have been made available to the public prior to the public comment period. As a result, the Department must "[s]eek additional public comment on a revised proposed plan," once it has provided the necessary information to the public.

Based on the concerns raised above, we ask that the Department provide meaningful opportunities for public comment. Since the Department failed to adequately perform its required tasks prior to the initial public comment period, it must now, to the extent it has taken any steps to address the numerous deficiencies in the Proposed Plan, provide this information to the public and reopen the public comment period. Before any record of decision is approved, the Department must hold a new public comment period after it has provided the information it is required to provide pursuant to CERCLA and the Department's regulations.

Sincerely,

Nate Watson*

Southern Environmental Law Center

Christina Reichert

Southern Environmental Law Center

Ellen D. Smith

Advocates for the Oak Ridge Reservation

Axel Ringe

Tennessee Chapter of the Sierra Club

Sandra Goss

Tennessee Citizens for Wilderness Planning

*Tennessee Bar Applicant

Attachments provided via ShareFile: https://southernenvironment.sharefile.com/d-sd546379b8554d858

¹⁸ 40 C.F.R. § 300.430(f)(3)(ii)(B).

SOUTHERN ENVIRONMENTAL LAW CENTER

Telephone 615-921-9470

1033 DEMONBREUN STREET, SUITE 205 NASHVILLE. TN 37203 Facsimile 615-921-8011

October 1, 2019

Submitted via E-mail¹ & U.S. Mail

John Michael Japp
FFA Project Manager
Oak Ridge Environmental Management
U.S. Department of Energy Oak Ridge Operations
P.O. Box 2001
Oak Ridge, TN 37831

RE: New information regarding the proposed landfill site for Oak Ridge Reservation Comprehensive Environmental Response, Compensation, and Liability Act Waste.

Dear Mr. Japp:

As a result of alarming new groundwater and geological information about the proposed landfill site, the U.S. Department of Energy must seek additional public comment on a revised proposed plan for its hazardous and radioactive waste. Under established law, the Department must provide a reasonable opportunity for public comment.² The Department has a statutory and regulatory obligation to seek additional public comment when new information significantly changes the basic features of the remedy with respect to scope, performance, or cost, in a manner unanticipated by the public.³ The Department has already conceded that the public should have had access to the groundwater and geological information prior to the comment period on the Proposed Plan.⁴ Because new information from Technical Memorandum 2 fundamentally changes the suitability of the Bear Creek Valley site, the Department must revise its Proposed Plan and seek additional public comment.

The Southern Environmental Law Center (SELC), Advocates for the Oak Ridge Reservation (AFORR), Tennessee Chapter of the Sierra Club, and Tennessee Citizens for

¹ John.Japp@orem.doe.gov

² Attachment (Att.) 1, U.S. Dep't of Energy, *Technical Memorandum 2 (TM-2)*, May 23, 2019 [hereinafter "TM-2"]; 42 U.S.C. § 9617(a) ("[T]he notice and analysis published . . . shall include sufficient information as may be necessary to provide a reasonable explanation of the proposed plan"); 40 C.F.R. § 300.430(f)(3)(i)(C) (requiring the lead agency to provide a reasonable opportunity for public comment on "the proposed plan and the supporting analysis and information located in the information repository").

³ 40 C.F.R. § 300.430(f)(3)(ii).

⁴ Att. 2, Dispute Resolution Agreement ¶ 3, Dec. 7, 2017.

Wilderness Planning (collectively, Citizen Groups) have repeatedly asked the Department to provide meaningful public comment opportunities, especially after the public has access to complete site characterization data.⁵ In a letter dated December 10, 2018, the Citizen Groups commented on the Proposed Plan and elucidated that the Department failed to provide sufficient supporting analysis, data, and information, including a complete characterization of the proposed landfill location.⁶ Nearly a year has passed since then, and the Citizen Groups and the public have continued ask the Department to comply with applicable law and provide adequate information about the Proposed Plan.⁷ Recently, the Citizen Groups again entreated the Department to reopen the comment period because the Department failed to "include sufficient information" regarding the Proposed Plan before the first public comment period.⁸

Despite the Citizen Groups' good faith efforts, the Department has not responded to the Citizen Groups' letters and has not committed to comply with the public comment requirements of the Comprehensive Environmental Response, Compensation, and Liability Act Waste (CERCLA). For the reasons set forth below, the Department must revise the Proposed Plan and provide an additional comment period.

I. New groundwater information significantly undermines the proposed landfill's ability to contain hazardous and radioactive waste.

New groundwater information in Technical Memorandum 2 significantly affects the design of the proposed landfill and leads to questions about the ability of the proposed landfill to contain hazardous and radioactive waste. Therefore, additional public engagement is both necessary and required by law. Once again, we request that the Department follow the law.

Under CERCLA regulations, "if new information is made available that significantly changes the basic features of the remedy with respect to scope, performance, or cost, such that the remedy significantly differs from the original proposal in the proposed plan and the supporting analysis and information, the lead agency shall [s]eek additional public comment

⁵ Att. 3, Letter from Christina I. Reichert, SELC, et al., to John Michael Japp, DOE, Dec. 10, 2018 [hereinafter "SELC et al. Comment Letter"].

⁶ *Id*.

⁷ Att. 4, Letter from Virginia H. Dale, Advocates for the Oak Ridge Reservation (AFORR), to John Michael Japp, DOE, Dec. 3, 2018 [hereinafter "AFORR Comment Letter"]; Att. 5, Comments from Mark Watson, City of Oak Ridge, to John Michael Japp, DOE, at the Public Hearing on the U.S. Department of Energy's Proposed Plan for the Disposal of Oak Ridge Reservation Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Waste, Nov. 7, 2018 [hereinafter "City of Oak Ridge Comments"]; Att. 6, Letter from Axel C. Ringe, Tennessee Chapter of the Sierra Club, to John Michael Japp, DOE, Dec. 10, 2018 [hereinafter "Sierra Club Comment Letter"].

⁸ Att. 7, Letter from Nate Watson, SELC, et al., to John Michael Japp, DOE, Aug. 1, 2019.

on a revised proposed plan, when the lead agency determines the change could not have been reasonably anticipated by the public based on the information available in the proposed plan or the supporting analysis and information in the administrative record." The Department itself recognized that where "data indicates that site suitability will require any changes to the [landfill] design then, it will be documented consistent with the [National Contingency Plan] at 40 CFR 300.430(f)(3), including possible issuance of a revised Proposed Plan." That is exactly the case here.

New groundwater information significantly changes the features of the remedy the Department has proposed: to construct a landfill that would taint a greenfield on the Oak Ridge Reservation (the Proposed Plan). ¹¹ In the Proposed Plan, the Department claimed the location was the "most appropriate area on the [Oak Ridge Reservation] for locating an onsite disposal facility" in part due to its "groundwater flow conditions," citing the "considerable amount of information" available about the subsurface and groundwater conditions in Bear Creek Valley. ¹² At the time of the public comment period, the Department told the public that the landfill would maintain a "10 ft geologic buffer above seasonal high groundwater." ¹³ The Department said that "[r]esults of the Phase 1 site characterization confirm the acceptability of the [landfill] site for a new, low-level waste landfill and support final site selection." ¹⁴ However, recently released Technical Memorandum 2 reveals that groundwater levels at the site are significantly higher than originally anticipated and understood. ¹⁵ According to the new groundwater information, a substantial portion of the landfill would sit below the water table. ¹⁶ (Figure 1).

⁹ 40 C.F.R. § 300.430(f)(3)(ii).

¹⁰ U.S. Dep't of Energy, *Proposed Plan for the Disposal of Oak Ridge Reservation Comprehensive Environmental Response, Compensation, and Liability Act Waste*, at 6 (Sept. 2018) [hereinafter "Proposed Plan"].

¹¹ Proposed Plan at 1. See SELC et al. Comment Letter.

¹² Proposed Plan at 6.

¹³ U.S. Dep't of Energy, *Draft 2, Version 2 Phase 1 Field Sampling Plan for the Proposed Environmental Management Disposal Facility for Comprehensive Environmental Response, Compensation, and Liability Act 19* (Mar. 2018), *in* Proposed Plan at Appendix B [hereinafter "D2 Phase 1 Field Sampling Plan"].

¹⁴ D2 Phase 1 Field Sampling Plan at 8 ("As a result, the groundwater elevation will be reduced and will be maintained lower than the geologic buffer, including reduction to the elevation of the groundwater mound below the central knob/spur ridge.").

¹⁵ Compare Att. 8, U.S. Dep't of Energy, Technical Memorandum 1 (TM-1), July 2, 2018, at 8-1 [hereinafter "TM-1"] (Results of the Phase 1 site characterization validate the key assumptions regarding the hydrogeologic setting (groundwater and surface water conditions) at the site.") with TM-2 at 7-9 to 7-16 (presenting graphs that show peak seasonal groundwater levels substantially closer to the ground surface than previously reported)...

¹⁶ TM-2 at 7-9 to 7-16.

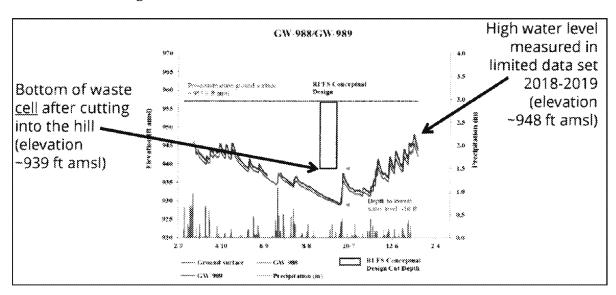


Figure 1. Site Characterization: Groundwater Levels. 17

The newly revealed groundwater levels at Bear Creek Valley raise critical questions about the design and performance of the landfill as proposed. The U.S. Environmental Protection Agency's (EPA) comments on Technical Memorandum 2 underline that the proposed landfill must have "a completely unsaturated clay geobuffer layer to demonstrate the protectiveness requirements necessary to obtain waivers." However, the landfill as proposed would sit below the water table, and there is a substantial risk that waste would not be adequately contained. The Tennessee Department of Environment (TDEC) stated that Technical Memorandum 2 "raises significant questions about how [the Department] will support the contention that the [proposed landfill] site is acceptable." More explicitly, TDEC stated that Technical Memorandum 2 "makes it difficult to determine if the landfill can be constructed and operated in a manner that will meet the two CERCLA threshold criteria." In the wake of this new information, the Department has not altered the Proposed Plan or given the public an opportunity to comment on the issues raised by this new information.

The public did not expect that the Department would propose, for a second time, to place a landfill in a location that is entirely unsuitable for containing hazardous and radioactive waste.

¹⁷ Att. 9, Tenn. Dep't of Envt. & Conservation, Environmental Management Disposal Facility (EMDF) Stakeholder Brief, at 4 (Aug. 2019) [hereinafter "TDEC Stakeholder Brief"].

¹⁸ Att. 10, Comments from Carl R. Froede, Jr., EPA, to John Michael Japp, DOE, Aug. 29, 2019, at 5 [hereinafter "EPA Comments on TM-2"].

¹⁹ Proposed Plan at 5.

²⁰ Att. 11, Comments from Randy Young, TDEC, to John Michael Japp, DOE, Aug. 27, 2019, at 3 [hereinafter "TDEC Comments on TM-2"].

²¹ *Id.* at 13.

The citizens of Tennessee have already seen the result of the same kind of landfill: the Department's existing landfill sits within the water table, and TDEC has contended that it is contaminating groundwater and nearby surface water.²²

Moreover, the public did not previously know or anticipate the seasonal high groundwater levels for the full winter season. As the EPA explained in its comments on Technical Memorandum 2, Technical Memorandum 1 "did not contain the planned full winter season of surface water and groundwater data." TDEC similarly explained that complete groundwater information was not documented in the Administrative Record at the time the Proposed Plan was released. It was not until the Department released Technical Memorandum 2 that the public became aware of the seasonal high groundwater levels that fundamental challenge the proposed project's scope and signal the proposed landfill's potential inability to meet CERCLA threshold requirements of protectiveness.

In sum, new groundwater information in Technical Memorandum 2 significantly changes the possible performance of the proposed landfill to a manner and extent beyond the comprehension of the public at the time of the comment period. To comply with the law, the Department must seek additional public comment on a revised proposed plan.²⁵

II. New geological information requires the Department to reopen on the comment period on a revised proposed plan.

In addition to new groundwater information, Technical Memorandum 2 also contains new geological information that significantly changes the basic features of the remedy with respect to scope, performance, or cost, such that the remedy significantly differs from the original proposal. ²⁶ This geological data shows that, despite the Department's statements in the Proposed Plan and Technical Memorandum 1, limestone, fractured bedrock, and a potential fault line may lie underneath the proposed landfill site.

In the Proposed Plan, the Department repeatedly stated that the geology of the Bear Creek Valley site supports its finding that the site is "the most appropriate area on the [Oak Ridge Reservation] for locating an onsite disposal facility." The Department told the public that

²² Att. 12, Letter from Chuck Head, TDEC, to David Adler, DOE, Jul. 8, 2019.

²³ EPA Comments on TM-2, at 1.

²⁴ TDEC Comments on TM-2 at 3.

²⁵ 40 C.F.R. § 300.430(f)(3)(ii).

 $^{^{26}}$ *Id*

²⁷ Proposed Plan at 6.

the "current valley subsurface appears relatively stable."²⁸ The Department said, "There is little limestone present in the bedrock underlying the proposed disposal cells."²⁹ And specifically, the Department stated that "a buffer area would be maintained between the limestone layer and all waste disposal and wastewater management operations."³⁰

However, information from Technical Memorandum 2 tells a different story. New boring logs from Technical Memorandum 2 note limestone at shallow depth intervals.³¹ For example, boring log 987 reports shale and limestone present at depths of 17–28 feet below ground surface.³² TDEC's comments on Technical Memorandum 2 explain that the natural process where groundwater flows through individual fractures is "active" at the proposed site.³³ The public neither knew nor anticipated the shallow limestone underneath the site, and therefore require additional opportunity for public comment.

Moreover, a concern that was not raised prior to the public comment period was the threat of earthquakes in Bear Creek Valley. Based on Technical Memorandum 2, however, the EPA is now concerned that "a possible fault zone exists beneath the proposed [landfill] site." There have been earthquakes in the region in recent years. The potential placement of a radioactive and hazardous waste landfill on a potential fault line would be untenable and significantly affects the appropriateness of the proposed landfill location. The public was unaware of this risk when providing comments on the Proposed Plan.

Because the new geological information from Technical Memorandum 2 introduces significant changes to the scope and potential performance of the proposed landfill, the Department must revise the Proposed Plan and reopen the comment period.

²⁸ *Id*.

²⁹ TM-1 at 2-1.

³⁰ Proposed Plan at 6.

³¹ EPA Comments on TM-2 at 10.

³² TM-2 at B-47.

³³ TDEC Comments on TM-2 at 21.

³⁴ EPA Comments on TM-2 at 11.

³⁵ Andrew Capps, *Friday Afternoon Earthquake Reported between Oak Ridge and Kingston*, Knox News, Feb. 22, 2019, https://www.knoxnews.com/story/news/local/2019/02/22/friday-afternoon-earthquake-reported-between-oak-ridge-and-kingston-east-tennessee/2954212002; Brian Overstreet, *East Tennessee Rattled by 2 More Earthquakes*, ABC News, Dec. 14, 2018, https://wlos.com/news/local/east-tennessee-rattled-by-2-more-earthquakes.

III. The December 2017 Dispute Resolution Agreement obligates the Department to seek public comment after it releases the results and analysis of the field investigation.

In addition to CERCLA's requirement that the Department seek additional comments on a revised plan, the Department's own action under the Federal Facilities Agreement necessitates additional public comment. In the December 2017 Dispute Resolution Agreement (the Agreement), the Department, EPA, and TDEC agreed that site characterization must be completed and the results and analysis provided to the public before the public comment period. Specifically, "[t]he results and analysis of a field investigation completed in accordance with an approved Field Sampling Plan (FSP) must be included in the administrative record and the Proposed Plan public comment period shall be provided thereafter." Pursuant to the Agreement, the Department must also ensure that the site investigation, and review of the results thereof, is completed prior to issuance of a record of decision.

TDEC and the EPA have consistently reminded the Department of these commitments, as seen in recent letters and comments on both the methodology and results of the Field Sampling Plan. Those comments highlight the necessity of additional public comment and review now that additional site characterization results and analyses have been released:

- TDEC's Comments on Draft 2 Phase 1 Field Sampling Plan: "After a January 5, 2018 [Dispute Resolution Agreement (DRA)] clarification call among the principals, it was confirmed that, consistent with the signed DRA, public comment on the Proposed Plan will occur after [Office of Environmental Management] completes the data collection identified in the EPA/TDEC-approved [Field Sampling Plan (FSP)] and the data are in the administrative record and available for public review." 39
- TDEC's Comments on Technical Memorandum 1: "The December 7, 2018, [sic] Dispute Resolution Agreement (DRA) says the results and analysis of the field investigation shall be included in the administrative record before the Proposed Plan public comment period." 40

³⁶ Dispute Resolution Agreement ¶ 3, Dec. 7, 2017.

³¹ Id.

³⁸ See id. ("This field investigation and EPA/TDEC's review of the results thereof, shall be conducted prior to execution of the Record of Decision (ROD) and shall be used in selecting the remedy.").

³⁹ Att. 13, Letter from Randy Young, TDEC, to John Michael Japp, DOE, Jan. 16, 2018.

⁴⁰ Att. 14, Letter from Randy Young, TDEC, to John Michael Japp, DOE, Jul. 26, 2018.

- **EPA's Comments on Technical Memorandum 1**: "The results and analysis of the field investigation in accordance with the FSP shall be included in the administrative record and the Proposed Plan public comment period shall be provided thereafter."
- **EPA's Comments on Technical Memorandum 2**: "The results and analysis of the field investigation in accordance with the FSP shall be included in the administrative record and the Proposed Plan public comment period shall be provided thereafter." ⁴²

Public comment is necessary because the Department has issued new results and analysis from the Field Sampling Plan. Recently released Technical Memorandum 2 contains results and analysis of the Field Sampling Plan, and there is apparently a third technical memorandum that was projected for release this Summer/Fall. Technical Memorandum 2 and (if released) Technical Memorandum 3 either were or would be released to the public after the close of the comment period on the Proposed Plan. That timing categorically fails to adhere to the Agreement between TDEC, EPA, and the Department about what the public must know prior to the comment period on a proposed plan. Simply put, there can be no public acceptance of the proposed landfill when the Department has failed to provide critical information to the public in advance of a public comment period.

Therefore, to honor the Agreement, the Department must reopen the comment period. The Department may not issue a record of decision prior to completion and review of the site investigation.

 $^{^{41}}$ Att. 15, Letter from Carl R. Froede, Jr., EPA, to John Michael Japp, DOE, Aug. 16, 2018 (quoting Dispute Resolution Agreement \P 3, Dec. 7, 2017).

⁴² EPA Comments on TM-2 at 1.

⁴³ TM-2 at ES-1 to ES-6 (summarizing the extensive results in the Technical Memorandum 2); Att. 16, Letter from Brian Henry & John Michael Japp, DOE, to Constance A. Jones, EPA, & Randy C. Young, TDEC, Jun. 7, 2019 (forecasting completion of Technical Memorandum #3 for August 2019) [hereinafter "TM-2 Transmittal Letter"].

⁴⁴ TM-2: TM-2 Transmittal Letter.

CONCLUSION

In conclusion, based on the concerns raised above, we urge the Department to seek additional comments on a revised proposed plan that incorporates complete results and analysis of the Field Sampling Plan. Since the Department has so far failed to comply with its obligations under the December 2017 dispute resolution agreement and CERCLA, it must now provide the public with the information it committed to provide, revise the Proposed Plan accordingly, and reopen the public comment period.

Sincerely,

Christina I. Reichert

Nathanael Watson*

Southern Environmental Law Center

CLEIDEL

Virginia H. Dale

Advocates for the Oak Ridge Reservation

Axel Ringe

Tennessee Chapter of the Sierra Club

Sandra K. Goss

Tennessee Citizens for Wilderness Planning

*Tennessee Bar Applicant

Attachments provided via ShareFile: https://southernenvironment.sharefile.com/d-sdf7a3ac30074a4e8

CC:

Constance A. Jones, EPA Randy Young, TDEC Patrick Parker, TDEC

ATTACHMENTS

- Att. 1, U.S. Dep't of Energy, Technical Memorandum 2 (TM-2), May 23, 2019.
- Att. 2, Dispute Resolution Agreement ¶ 3, Dec. 7, 2017.
- Att. 3, Letter from Christina I. Reichert, SELC, et al., to John Michael Japp, DOE, Dec. 10, 2018.
- Att. 4, Letter from Virginia H. Dale, Advocates for the Oak Ridge Reservation (AFORR), to John Michael Japp, DOE, Dec. 3, 2018.
- Att. 5, Comments from Mark Watson, City of Oak Ridge, to John Michael Japp, DOE, at the Public Hearing on the U.S. Department of Energy's Proposed Plan for the Disposal of Oak Ridge Reservation Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Waste, Nov. 7, 2018.
- Att. 6, Letter from Axel C. Ringe, Tennessee Chapter of the Sierra Club, to John Michael Japp, DOE, Dec. 10, 2018.
- Att. 7, Letter from Nate Watson, SELC, et al., to John Michael Japp, DOE, Aug. 1, 2019.
- Att. 8, U.S. Dep't of Energy, Technical Memorandum 1 (TM-1), July 2, 2018.
- Att. 9, Tenn. Dep't of Envt. & Conservation, Environmental Management Disposal Facility (EMDF) Stakeholder Brief (Aug. 2019).
- Att. 10, Comments from Carl R. Froede, Jr., EPA, to John Michael Japp, DOE, Aug. 29, 2019.
- Att. 11, Comments from Randy Young, TDEC, to John Michael Japp, DOE, Aug. 27, 2019.
- Att. 12, Letter from Chuck Head, TDEC, to David Adler, DOE, Jul. 8, 2019.
- Att. 13, Letter from Randy Young, TDEC, to John Michael Japp, DOE, Jan. 16, 2018.
- Att. 14, Letter from Randy Young, TDEC, to John Michael Japp, DOE, Jul. 26, 2018.
- Att. 15, Letter from Carl R. Froede, Jr., EPA, to John Michael Japp, DOE, Aug. 16, 2018.
- Att. 16, Letter from Brian Henry & John Michael Japp, DOE, to Constance A. Jones, EPA, & Randy C. Young, TDEC, Jun. 7, 2019.